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ALEXANDRIA, VA 22314

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| EXAMINER |
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TALBOT, MICHAEL

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| ART UNIT | PAPER NUMBER |
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3722

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12/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

41

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|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 10/517,205 | Applicant(s) ROSBERG, NICLAS | |
| | Examiner Michael W. Talbot | Art Unit 3722 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,10 and 12-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, (1) the axial bore provided with "a stop" recited in claim 1 with respect to Fig. 6, and (2) the end for releasably holding the tool having "a stop" recited in claim 9 with respect to Fig. 5 must be shown and/or indexed or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 9,13 and 14 are objected to because of the following informalities:

Claim 9, lines 3 through 4, the phrase "the tool from being inserted too far into the mandrel" should be changed so as to read --the tool from being inserted too far onto the

mandrel-- as the tool surrounds or is mounted onto the mandrel, in lieu of "into" the mandrel.

Claim 13 recites the limitation "the form" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 14, line 2, the phrase "the tool is to be received into the mandrel" should be changed so as to read --the tool is to be received onto the mandrel -- as the tool surrounds or is mounted onto the mandrel, in lieu of "into" the mandrel.

Appropriate correction is required.

Claim Rejections - 35 USC § 102 & 35 USC § 103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 10 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 84/04367 or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 84/04367. WO 84/04367 shows in Figures 1-3 a hydro-mechanical mandrel having one end for mounting in a machining device and having a second end for releasably holding a tool (a), wherein the second end further has a stop (surface/flange "k" best shown in Fig. 2 on left side) for preventing the tool from being inserted too far onto the mandrel. WO 84/04367 shows the mandrel comprising an inner sleeve (containing surface e) and an outer sleeve (containing surface f) enclosing at

least one chamber (c) in which a clamping means in the shape of an annular piston (d) is enclosed. WO 84/04367 shows the piston by means of hydraulically operating means is displaceable in an axial direction (page 5, lines 13-20), wherein the piston and the inner sleeve have respective contacting and interacting conical surfaces with each other (page 5, lines 10-13) having a conicity that is self-locking (page 5, lines 24-26), whereby axial displacement of the piston in one direction causes radial expansion of the outer sleeve for clamping the tool and axial displacement of the piston in another direction causes relief of the outer sleeve for releasing the tool. WO 84/04367 shows the chamber including a pressurized chamber (to the left side of piston d within chamber c as viewed in Fig. 1) and a relief chamber (to the right side of piston d within chamber c as viewed in Fig. 1). WO 84/04367 shows a sealing means in the shape of O-rings arranged between the piston and the outer sleeve (col. 5, lines 20-24).

In the alternative, regarding claim 1, the phrase "a mandrel having one end for mounting in a machining device and having a second end for releasably holding a tool" does not further limit the claim and is merely a functional/intended use statement not defining any specific structure. It should be noted that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The only requirement is that the prior art reference be capable of said intended use. See MPEP 2114. In this case, WO 84/04367 discloses a structure fully capable of having one end (extreme right side of Fig. 2) being connected to a machining device and a second end (left side of Fig. 2) for releasably holding a tool regardless as to how well it performs.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elsner '480 in view of WO 84/04367. Elsner '480 shows in Figures 1-4 a hydro-mechanical chuck (1) having one end (at 3) for mounting in a machining device and having a second end (at 4,5) for releasably holding a shaft (2) of a tool. Elsner '480 shows the hydro-mechanical chuck comprising an inner sleeve (5) with an axial bore for receiving the shaft of the tool, wherein the axial bore has a stop (rear wall surface formed between shaft (2) and end (3) at bottom of axial bore) for preventing the tool from being inserted too far into the axial bore, and an outer sleeve (4) enclosing at least one chamber (6,9,10) in which a clamping means in the shape of an annular piston (7) is enclosed. Elsner '480 shows the piston by means of hydraulically operating means (19,20) is displaceable in an axial direction, wherein the piston and the outer sleeve have respective contacting and interacting conical surfaces (at 8) with each other having a conicity that is self-locking, whereby axial displacement of the piston in one direction causes radial displacement of the inner sleeve for clamping the shaft and axial displacement of the piston in another direction causes relief of the inner sleeve for releasing the shaft (page 3, lines 31-48). Elsner '480 shows the chamber including a pressurized chamber (9 or 10) and a relief chamber (10 or 9). Elsner '480 shows the inner sleeve and outer sleeve being joined together by welding (at tear drop locations located at the extreme outside and inside surfaces between the inner and outer sleeves). Elsner '480 shows a part intended for clamping a tool is integrated with a part intended for mounting in a machining device (via bolt). Elsner '480 lacks the conicity being between the inner sleeve and the piston, and a sealing means in the shape of O-rings arranged between the piston and the outer sleeve.

WO 84/04367 shows in Figures 1-3 a hydro-mechanical chuck having one end for mounting in a machining device and having a second end for releasably holding a shaft (b) of a tool. WO 84/04367 shows the hydro-mechanical chuck comprising an inner sleeve (containing surface e) with an axial bore for receiving the shaft of the tool (Fig. 1) and an outer sleeve (containing surface f) enclosing at least one chamber (c) in which a clamping means in the shape of an annular piston (d) is enclosed. WO 84/04367 shows the piston by means of hydraulically operating means is displaceable in an axial direction (page 5, lines 13-20), wherein the piston and the inner sleeve have respective contacting and interacting conical surfaces with each other (page 5, lines 10-13) having a conicity that is self-locking (page 5, lines 24-26), whereby axial displacement of the piston in one direction causes radial displacement of the inner sleeve for clamping the shaft and axial displacement of the piston in another direction causes relief of the inner sleeve for releasing the shaft (page 5, lines 13-20). WO 84/04367 shows a sealing means in the shape of O-rings arranged between the piston and the outer sleeve (col. 5, lines 20-24). In view of this teaching of WO 84/04367, it would have been obvious to one of ordinary skill in the art to modify the hydro-mechanical chuck of Elsner '480 to include a conicity between the piston and inner sleeve to provide the desired clamping surfaces/forces and to include O-rings to overcome leakage of the hydraulic system.

Regarding claim 1, the phrase "a chuck having one end for mounting in a machining device and having a second end for releasably holding a shaft tool" does not further limit the claim and is merely a functional/intended use statement not defining any specific structure. It should be noted that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The only requirement is that the prior art reference be capable of said intended use. See MPEP 2114. In this case, Elsner

'480 discloses a structure fully capable of having one end (at 3) being connected to a machining device and a second end (at 4,5) for releasably clamping a tool regardless as to how well it performs.

Response to Arguments

7. Applicant's arguments filed 24 September 2007 have been fully considered but they are not persuasive with respect to references WO 84/04367 and newly applied Elsner '480 resulting from Applicant's amendments.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's

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office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filling papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MWT
Examiner
28 November 2007

Monica S. Carter
MONICA CARTER
SUPERVISORY PATENT EXAMINER



ENTER 11/28/07 *RAW*

Fig. 1

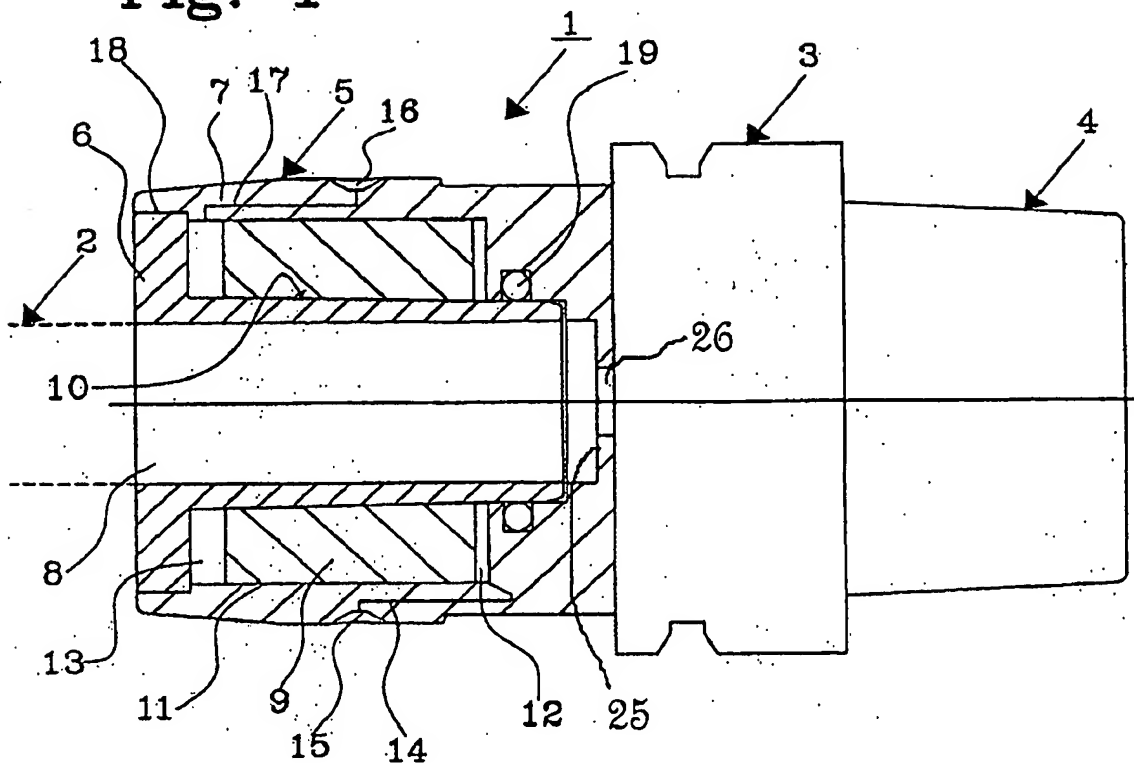


Fig. 2

